

CLAIMS

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- 2 **1.** A software-implemented video rendering system comprising:
- 3 a video application configured to enable a user to combine multiple
- 4 different video clips; and
- 5 a bitmap processor operatively coupled with the video application and
- 6 configured to receive a first bitmap that can be used to render a transition between
- 7 video clips and automatically process the first bitmap to provide a different
- 8 transition between video clips.
- 9
- 10 **2.** The software-implemented video rendering system of claim 1, wherein the
- 11 bitmap processor is configured to process the first bitmap to provide a second
- 12 bitmap that is different from the first bitmap, the second bitmap being configured
- 13 to render the different transition.
- 14
- 15 **3.** The software-implemented video rendering system of claim 1, wherein the
- 16 bitmap processor comprises multiple modules each of which being configured to
- 17 operate upon the first bitmap to provide either or both of (1) a different bitmap or
- 18 (2) a transition that is different from the transition provided by the first bitmap.
- 19
- 20 **4.** The software-implemented video rendering system of claim 3, wherein one
- 21 of the modules comprises a shrinking/stretching module that is configured to
- 22 shrink or stretch, respectively, the first bitmap.
- 23
- 24
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1 5. The software-implemented video rendering system of claim 3, wherein one
2 of the modules comprises a replication module that is configured to replicate the
3 first bitmap.

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5 6. The software-implemented video rendering system of claim 3, wherein one
6 of the modules comprises an offset module that is configured to provide a
7 transition that is offset from a transition provided by the first bitmap.

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9 7. The software-implemented video rendering system of claim 3, wherein one
10 of the modules comprises a border module that is configured to provide a border in
11 a transition defined by the first bitmap.

12
13 8. The software-implemented video rendering system of claim 3, wherein the
14 one or more modules comprise modules selected from a group consisting of:

15 a shrinking/stretching module that is configured to shrink or stretch,
16 respectively, the first bitmap;

17 a replication module that is configured to replicate the first bitmap;

18 an offset module that is configured to provide a transition that is offset from
19 a transition provided by the first bitmap; and

20 a border module that is configured to provide a border in a transition
21 defined by the first bitmap.

1 9. The software-implemented video rendering system of claim 1, wherein the
2 bitmap processor is configured to receive one or more parameters provided by a
3 user and use those parameters to process the first bitmap.

4
5 10. The software-implemented video rendering system of claim 9, wherein the
6 bitmap processor is configured to use the one or more parameters to change the
7 structure of the first bitmap.

8
9 11. Computer-readable media having software code that implements the video
10 rendering system of claim 1.

11
12 12. A method of displaying a video comprising:
13 selecting a bitmap that defines a first transition that can be used to
14 transition between video clips;
15 operating upon the bitmap to provide a second transition that is different
16 from the first transition by using one or more parameters that are provided by a
17 user, the parameters being used to operate upon the bitmap; and
18 effecting the second transition between video clips.

19
20 13. The method of claim 12, wherein said operating comprises providing a
21 second bitmap that is different from the first-mentioned bitmap.

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23 14. The method of claim 12, wherein said operating comprises stretching the
24 first-mentioned bitmap.
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1 15. The method of claim 12, wherein said operating comprises shrinking the
2 first-mentioned bitmap.

3
4 16. The method of claim 12, wherein said operating comprises at least one of
5 stretching and shrinking the first-mentioned bitmap.

6
7 17. The method of claim 12, wherein said operating comprises replicating the
8 first-mentioned bitmap.

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10 18. The method of claim 12, wherein said operating comprises offsetting the
11 first-mentioned bitmap.

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13 19. The method of claim 12, wherein said operating comprises providing a
14 border that is used in connection with the first-mentioned bitmap to effect the
15 second transition.

16
17 20. The method of claim 12, wherein said operating comprises one or more of:
18 stretching the first-mentioned bitmap;
19 shrinking the first-mentioned bitmap;
20 replicating the first-mentioned bitmap;
21 offsetting the first-mentioned bitmap; and
22 providing a border that is used in connection with the first-mentioned
23 bitmap to effect the second transition.
24
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1 **21.** A video application that is programmed to implement the method of claim

2 12.

3
4 **22.** One or more computer-readable media having computer-readable
5 instructions thereon which, when executed by a computer, implement the method
6 of claim 12.

7
8 **23.** A method of displaying a multi-media editing project comprising:

9 receiving one or more parameters from a user, the parameters being
10 associated with a multi-media editing project and relating to a transition that can
11 be applied between two video clips in the project;

12 selecting a bitmap that defines a first transition that can be used to
13 transition between the video clips;

14 operating upon the bitmap to provide a second transition that is different
15 from the first transition by using the one or more parameters; and

16 effecting the second transition between video clips.

17
18 **24.** The method of claim 23, wherein said operating comprises providing a
19 second bitmap that is different from the first-mentioned bitmap.
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1 **25.** The method of claim 23, wherein said operating comprises one or more of:
2 stretching the first-mentioned bitmap, shrinking the first-mentioned bitmap,
3 replicating the first-mentioned bitmap, offsetting the first-mentioned bitmap, and
4 providing a border that is used in connection with the first-mentioned bitmap to
5 effect the second transition.

6
7 **26.** The method of claim 23, wherein said receiving comprises receiving
8 parameters that define a range that, in turn, defines a border thickness of a border
9 that is used in connection with the first-mentioned bitmap to effect the second
10 transition.

11
12 **27.** One or more computer-readable media having computer-readable
13 instructions thereon which, when executed by a computer, cause the computer to:

14 select a first bitmap associated with a transition that can be applied between
15 two video clips in a video editing project;

16 operate upon the first bitmap to provide a second bitmap that is different
17 from the first bitmap by using one or more parameters that are provided by a user,
18 the first bitmap being operated upon by operations comprising one or more of the
19 following operations: stretching, shrinking, replicating, and offsetting; and

20 use the second bitmap in a transition between at least two videos.

21
22 **28.** A software-implemented method of displaying a multi-media editing
23 project comprising:

24 providing a user interface (UI) through which a user can enter one or more
25 parameters that can be used to manipulate a bitmap-defined transition;

1 receiving one or more parameters that are entered by a user via the UI;
2 selecting a first bitmap associated with the one or more parameters entered
3 by the user;
4 automatically operating upon the bitmap to provide a second bitmap that is
5 different from the first bitmap by using the one or more parameters that are
6 provided by a user, said operating comprising performing one or more of the
7 following operations on the first bitmap: stretching, shrinking, replicating, and
8 offsetting; and
9 using the second bitmap in a transition between at least two videos.

10
11 **29.** A multi-media project editing application programmed to implement the
12 method of claim 28.

13
14 **30.** A multi-media project editing system comprising:
15 a software implemented bitmap processor configured for use in connection
16 with a multi-media editing application to effect a transition between different
17 videos, the bitmap processor being configured to:

18 receive one or more parameters from a user;
19 select a first bitmap that is to be used to render a first transition
20 between two videos;
21 operate upon the first bitmap in accordance with the one or more
22 parameters to provide a second transition that is different from the first
23 transition; and
24 apply the transition between two videos.
25

1 **31.** The multi-media project editing system of claim 30, wherein the bitmap
2 processor operates upon the first bitmap to provide a second bitmap that defines
3 the second transition.

4
5 **32.** The multi-media project editing system of claim 31, wherein the bitmap
6 processor is configured to rescale the second bitmap so that it contains a
7 predetermined number of gray scale values.

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9 **33.** The multi-media project editing system of claim 31, wherein the bitmap
10 processor can operate upon the first bitmap by stretching the first bitmap.

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12 **34.** The multi-media project editing system of claim 31, wherein the bitmap
13 processor can operate upon the first bitmap by shrinking the first bitmap.

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15 **35.** The multi-media project editing system of claim 31, wherein the bitmap
16 processor can operate upon the first bitmap by stretching or shrinking the first
17 bitmap.

18
19 **36.** The multi-media project editing system of claim 31, wherein the bitmap
20 processor can operate upon the first bitmap by replicating the first bitmap.

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22 **37.** The multi-media project editing system of claim 31, wherein the bitmap
23 processor can operate upon the first bitmap by offsetting the first bitmap.

38. The multi-media project editing system of claim 30, wherein the bitmap processor can operate upon the first bitmap to provide a border within a transition that is defined by the first bitmap.

39. A method of displaying a multi-media editing project comprising:
selecting a bitmap comprising multiple pixels, each pixel being capable of having one of a number of predetermined of gray scale values, the bitmap being configured for use in effecting a transition between two videos in a multi-media editing project;

operating upon the selected bitmap to provide a second bitmap that is different from the first bitmap by using one or more parameters that are provided by a user;

rescaling the second bitmap to ensure that pixels of the second bit map have, collectively, all of the predetermined gray scale values; and

using the second bitmap in a transition between at least two videos.

40. The method of claim 39 further comprising receiving one or more parameters specified by a user.

41. The method of claim 39, wherein said operating comprises stretching the selected bitmap.

42. The method of claim 39, wherein said operating comprises shrinking the selected bitmap.

1 43. The method of claim 39, wherein said operating comprises at least one of
2 stretching or shrinking the selected bitmap.

3
4 44. The method of claim 39, wherein said operating comprises replicating the
5 selected bitmap.

6
7 45. The method of claim 39, wherein said operating comprises offsetting the
8 selected bitmap.

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10 46. The method of claim 39, wherein said operating comprises one or more of:
11 stretching the selected bitmap, shrinking the selected bitmap, replicating the
12 selected bitmap, and offsetting the selected bitmap.

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14 47. A multi-media project editing application programmed to implement the
15 method of claim 39.

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17 48. One or more computer-readable media having computer-readable
18 instructions thereon which, when executed by a computer, implement the method
19 of claim 39.

20 Add A3
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